

**REMARKS**

Claims 1-20 are currently being cancelled in lieu of new claims 21-55.

In particular, new claim 21 corresponds to previously pending claims 1 and 7; new claims 22-25 correspond to previously pending claims 2-5; new claims 26-30 correspond to previously pending claims 8-12; new claim 31 corresponds to previously pending claims 7 and 13; new claims 32-36 correspond to previously pending claims 14-18; new claim 37 corresponds to previously pending claim 20; new claim 38 corresponds to previously pending claims 1, 8, and 9; new claims 39-44 correspond to previously pending claims 2-7; new claims 45-47 correspond to previously pending claims 10-12; new claim 48 corresponds to previously pending claims 8, 9, and 13; and new claims 49-55 correspond to previously pending claims 14-20.

The current amendments do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, the Examiner is respectfully requested to enter the amendments, and allowance of the claims is earnestly solicited.

**1. Allowable Subject Matter**

The Office Action states on page 6, lines 5-12,

Claims 7 and 9 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

Regarding claim 7, application of the claimed pretreatment step to a Phillips catalyst is not disclosed nor adequately

suggested in the available prior art.

Regarding claim 9, the claimed feature of producing a fluidized bed of catalyst in the respective reactor (for at least one of the pretreatment step and the polymerization step) is not disclosed nor adequately suggested in the available prior art.

**RESPONSE**

Applicant respectfully thanks the Examiner for acknowledging previously pending claims 7 and 9 would be allowable if rewritten in independent form. Accordingly, Applicant has cancelled previously pending claims 1-20, and submitted new claims 21-55, wherein new claim 21 corresponds to previously pending claims 1 and 7; new claims 22-25 correspond to previously pending claims 2-5; new claims 26-30 correspond to previously pending claims 8-12; new claim 31 corresponds to previously pending claims 7 and 13; new claims 32-36 correspond to previously pending claims 14-18; new claim 37 corresponds to previously pending claim 20; new claim 38 corresponds to previously pending claims 1, 8, and 9; new claims 39-44 correspond to previously pending claims 2-7; new claims 45-47 corresponds to previously pending claims 10-12; new claim 48 corresponds to previously pending claims 8, 9, and 13; and new claims 49-55 correspond to previously pending claims 14-20.

As such, Applicant respectfully believes new claims 21-55 are patentably distinguishable over the prior art of record, and respectfully solicits an allowance of the same.

**2. Rejection of Claims 1-6, 8, 10-12, 19 and 20 Under 35 U.S.C.**

**S103(a)**

The Office Action states on page 2, line 21 - page 4, line 2, Claims 1-6, 8, 10-12, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0017617 (Schuth et al).

Schuth et al disclose a method for determining properties of a material library, the method including the steps of (i) coating substrate channels with catalyst and/or catalyst precursor (in the form of solutions, emulsions and/or dispersions); (ii) bringing the substrate to the desired reaction temperature and then passing a fluid starting material through or along the substrate; and (iii) analyzing the reaction product in the resultant effluent (paragraphs 0095-0097). The substrate channels are preferably included in a parallel tube-bundle reactor (see paragraph 0031 and Fig. 2), and the catalyst and/or catalyst precursor may be subjected to thermal treatment at a temperature defined by a range (20 to 1500°C) fully embractive of the presently claimed range, to dry and (if appropriate) sinter or calcine such materials (see paragraphs 0049-0052).

Application of the disclosed method to selecting polymerization catalysts is not specifically mentioned. However, the Schuth et al invention is said to permit automated production and catalytic testing for the mass screening of, e.g., heterogeneous catalysts for chemical reactions (see paragraph 0100), suitable examples of which include addition reactions and polymerizations as mentioned in paragraph 0102.

Thus, to an ordinary skilled practitioner seeking to screen potential polymerization catalysts, it would have been obvious at the time of applicants' invention to undertake the method of Schuth et al by subjecting catalyst precursors to candidate polymerization catalysts to the described thermal treatment in a parallel array of reactors and utilize a fluid starting material including monomer reactants suitable to produce the desired polymer product(s) with the aid of such catalysts, and then analyze polymer properties of interest. Those of ordinary skill would have so undertaken the disclosed method with a reasonable expectation of success in selecting viable polymerization catalysts for particular polymer product(s)

under consideration.

**RESPONSE**

Claims 1-6, 8, 10-12, 19 and 20 have been cancelled rendering the above rejection moot.

Notwithstanding, Applicant has submitted new claims 21-55, wherein new claim 21 corresponds to previously pending claims 1 and 7; new claims 22-25 correspond to previously pending claims 2-5; new claims 26-30 correspond to previously pending claims 8-12; new claim 31 corresponds to previously pending claims 7 and 13; new claims 32-36 correspond to previously pending claims 14-18; new claim 37 corresponds to previously pending claim 20; new claim 38 corresponds to previously pending claims 1, 8, and 9; new claims 39-44 correspond to previously pending claims 2-7; new claims 45-47 corresponds to previously pending claims 10-12; new claim 48 corresponds to previously pending claims 8, 9, and 13; and new claims 49-55 correspond to previously pending claims 14-20.

Accordingly, in light of the Examiner's acknowledgement in the current Office Action on page 6, lines 5-12, that previously pending claims 7 and 9 would be allowable if rewritten in independent form, Applicant respectfully believes new claims 21-55 are patentably distinguishable from the prior art of record. As such, Applicant kindly solicits for an allowance of new claims 21-55.

**3. Rejection of Claims 13-15 Under 35 U.S.C. §102(b)**

The Office Action states on page 4, line 3 - page 5, line 2, Claims 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/44801.

WO '801 describes an array of parallel reactors, each reactor having a bed of catalyst operating in a fluidized bed mode; see page 4, final paragraph, page 6, first full paragraph and Fig. 2, which depicts an individual reactor as including the requisite elements of the applicants' reactor as claimed [claim 13, subparagraphs a), b) and c)]. In particular, frit 208 of Fig. 2 is seen to correspond to 'bottom (10)' of present claim 13 and, hence, the depicted reactor appears to have no 'internal' restrictive of flow, as claimed. But in any event, WO '801 states, in reference to Fig. 2, that the catalyst bed may be located above frit 208 (see page 10, first full paragraph), and in fact such a catalyst/frit arrangement is shown in Fig. 5d.

As to the process steps recited in present claim 13, it is noted that recitation of an intended use of a claimed apparatus must result in a structural difference between the claimed apparatus and the prior art in order to patentably distinguish the claimed apparatus from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, the claim recitations with respect to the intended manner of implementing the claimed apparatus do not differentiate the claimed apparatus from the prior art apparatus since the latter teaches all the structural limitations of the claim. See, *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP 2114.

**RESPONSE**

Claims 13-15 have been cancelled rendering the above rejection moot.

Notwithstanding, Applicant has submitted new claims 21-55, wherein new claim 21 corresponds to previously pending claims 1 and 7; new claims 22-25 correspond to previously pending claims 2-5; new

claims 26-30 correspond to previously pending claims 8-12; new claim 31 corresponds to previously pending claims 7 and 13; new claims 32-36 correspond to previously pending claims 14-18; new claim 37 corresponds to previously pending claim 20; new claim 38 corresponds to previously pending claims 1, 8, and 9; new claims 39-44 correspond to previously pending claims 2-7; new claims 45-47 corresponds to previously pending claims 10-12; new claim 48 corresponds to previously pending claims 8, 9, and 13; and new claims 49-55 correspond to previously pending claims 14-20.

Accordingly, in light of the Examiner's acknowledgement in the current Office Action on page 6, lines 5-12, that previously pending claims 7 and 9 would be allowable if rewritten in independent form, Applicant respectfully believes new claims 21-55 are patentably distinguishable from the prior art of record. As such, Applicant kindly solicits for an allowance of new claims 21-55.

**4. Rejection of Claims 16-18 Under 35 U.S.C. §103(a)**

The Office Action states on page 5, lines 3-20,

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/44801.

The discussion of WO '801 set out in the preceding rejection is incorporated herein by reference.

Regarding claims 16 and 17, modifying each reactor of the array of WO '801 to include the requisite temperature control units would have been obvious to one of ordinary skill in the art given the teaching therein that '[a]ll the beds may be maintained at the same temperature, or individual beds may be set and maintained at different temperatures. The array may also be divided into sections

with each section being operated at a different temperature.' (See page 6, final paragraph.) To that end, the inclusion of a control unit to control temperature of the feed stream to each reactor based on the desired bed temperature would have been a conventional expedient, well within the realm of ordinary skill.

Regarding claim 18, Official notice is taken of the fact that the recited materials, e.g., stainless steel, are well known in the reactor design art as construction materials. Therefore, to one of ordinary skill in that art, it would have been an obvious material choice to select such material as stainless steel, for instance, for constructing the fluidized bed reactors of WO '801.

**RESPONSE**

Claims 16-18 have been cancelled rendering the above rejection moot.

Notwithstanding, Applicant has submitted new claims 21-55, wherein new claim 21 corresponds to previously pending claims 1 and 7; new claims 22-25 correspond to previously pending claims 2-5; new claims 26-30 correspond to previously pending claims 8-12; new claim 31 corresponds to previously pending claims 7 and 13; new claims 32-36 correspond to previously pending claims 14-18; new claim 37 corresponds to previously pending claim 20; new claim 38 corresponds to previously pending claims 1, 8, and 9; new claims 39-44 correspond to previously pending claims 2-7; new claims 45-47 corresponds to previously pending claims 10-12; new claim 48 corresponds to previously pending claims 8, 9, and 13; and new claims 49-55 correspond to previously pending claims 14-20.

Accordingly, in light of the Examiner's acknowledgement in the

current Office Action on page 6, lines 5-12, that previously pending claims 7 and 9 would be allowable if rewritten in independent form, Applicant respectfully believes new claims 21-55 are patentably distinguishable from the prior art of record. As such, Applicant kindly solicits for an allowance of new claims 21-55.

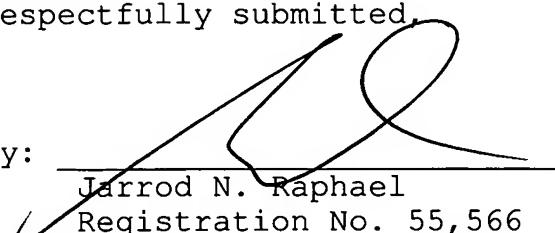
**CONCLUSION**

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw the rejections, and allow pending claims 21-55. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practitioner if any questions or comments arise.

Respectfully submitted,

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